Partial. Listing

United States Patent [19

Sakai et al.



[11] Patent Number:

5,630,071

[45] Date of Patent:

May 13, 1997

[54] POS SYSTEM HAVING SELF SCANNER AND DISPLAY FOR ISSUING TOTAL NUMBER OF PURCHASED COMMODITIES AFTER EACH FIXED INTERVAL OF TIME

[75] Inventors: Kazuhito Sakai; Tomochika Shibata; Chizuo Suzuki; Chizu Shimizu, all of

Kawasaki; Kaoru Kikuchi, Hachioji; Kyouko Terada, Kawasaki, all of Japan

[73] Assignee: Fujitsu Limited, Kawasaki, Japan

[21] Appl. No.: 598,087

[56]

[22] Filed: Feb. 7, 1996

Related U.S. Application Data

[63]	Continuation of Ser. No. 273,789, Jul. 12, 1994, abandoned.
[30]	Foreign Application Priority Data
Nov.	26, 1993 [JP] Japan 5-296990
[51]	Int. Cl. 6
[52]	U.S. Cl
[58]	Field of Search
	364/401, 405, 483, 408; 235/383, 431,
	380, 381

References Cited

U.S. PATENT DOCUMENTS

4,071,740	1/1978	Gogulski	235/431
4,310,885	1/1982	Azcua et al	364/405
4,441,160	4/1984	Azcua et al	364/900
4,528,638	7/1985	Hatta et al	364/709
4,729,097	3/1988	Takaoka et al	364/405
4,855,908	8/1989	Shimoda et al	364/405
4,859,838	8/1989	Okiharu	235/383
4,877,947	10/1989	Mori	235/381
4,901,243	2/1990	Uehara	364/483
5,235,509	8/1993	Mueller et al	364/405
5,345,071	9/1994	Dumont	235/383

FOREIGN PATENT DOCUMENTS

52-132651	11/1977	Japan .
58-96367	6/1983	Japan .
63-36119	2/1988	Japan .
63-145591	6/1988	Japan .
63-223998	9/1988	Japan .
2-277412	11/1990	Japan .
3-232079	10/1991	Japan .

OTHER PUBLICATIONS

Grocery Buggy; IBM Technical Disclosure Bulletin; vol. 31, No. 6, Nov. 1988; pp. 399-400.

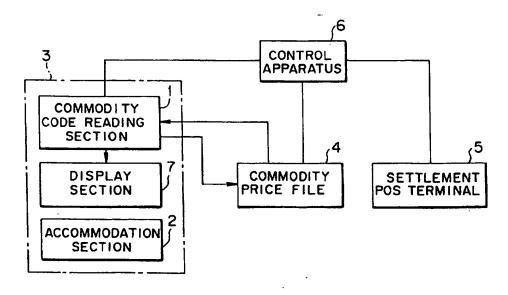
Plus De Manipulation Ni D'Attente Aux Caisses Des Supermarchés; Science & Vie; Echos De L'Industrie; No. 884; May 1991.

Primary Examiner—Meng-Ai T. An Attorney, Agent, or Firm—Armstrong, Westerman, Hattori, McLeland & Naughton

57] ABSTRACT

A POS (Point Of Sales) system which employs a purchased commodity accommodating and transporting apparatus having a self scanning function is improved in that a total amount of money for commodities loaded on a shopping cart or in a shopping basket or unit prices of the individual commodities can come to a knowledge of a customer before the commodities are transported to a settlement POS terminal thereby to prevent possible shopping of an amount of money greater than an estimate to allow smooth shopping and that commodities are printed in a sorted condition for different groups to facilitate confirmation of purchased commodities by a customer. A display section is provided on the purchased commodity accommodating and transporting apparatus and displays the prices of commodities obtained by retrieval of a commodity price file in accordance with commodity code information read by a commodity code reading section and a total value of the prices of the commodities.

15 Claims, 25 Drawing Sheets



DOCUMENT-IDENTIFIER: US 5630071 A TITLE: POS system having self scanner and display for issuing total number of purchased commodities after each fixed interval of time
KWIC

DEPR:

The purchased commodity accommodating and transporting apparatus 21 may be a

shopping cart (hand cart), a shopping basket or a like member for accommodating

and transporting purchased commodity in a store. Normally, a plurality of such purchased commodity accommodating and transporting apparatus 21 are prepared in

the store, and each of the purchased commodity accommodating and transporting

apparatus 21 individually has a unique identification number applied thereto.

DEPR:

The purchased commodity accommodating and transporting apparatus 31 corresponds

to the purchased commodity accommodating and transporting apparatus 21 in the

first embodiment described above and may be a shopping cart (hand cart), a shopping basket or a like member having a self scanning function. A plurality of such purchased commodity accommodating and transporting apparatus 31 are

prepared in a store so as to allow customers to accommodate and transport purchased commodities in the store, and have different <u>unique identification</u> numbers applied thereto. While such a shopping cart 31 as shown in FIG. 4 can be employed for the purchased commodity accommodating and transporting apparatus 31 similarly as in the first embodiment, the form of a display of the display section is different from that in the first embodiment.

DEPR:

The purchased commodity accommodating and transporting apparatus 41 corresponds

to the purchased commodity accommodating and transporting apparatus 21 and 31

in the first and second embodiments described above and may be a shopping cart

04/15/2002, EAST Version: 1.03.0002

(hand cart), a shopping basket or a like member having a self scanning function. A plurality of such purchased commodity accommodating and transporting apparatus 41 are prepared in a store so as to allow customers to accommodate and transport purchased commodities in the store, and have different <u>unique identification</u> numbers applied thereto. Such a shopping cart 41 as shown in FIG. 4 can be employed for the purchased commodity accommodating

and transporting apparatus 41, and a shopping basket not shown can be placed onto the shopping cart.

DEPR:

The purchased commodity accommodating and transporting apparatus 51 corresponds

to the purchased commodity accommodating and transporting apparatus 21, 31 and

41 in the first to third embodiments described above, and may be a shopping cart (hand cart), a shopping basket or a like member having a self scanning function. A plurality of such purchased commodity accommodating and transporting apparatus 51 are prepared in a store so as to allow customers to accommodate and transport purchased commodities in the store, and have different <u>unique identification</u> numbers applied thereto. Such a shopping cart 51 as shown in FIG. 4 can be employed for the purchased commodity accommodating

and transporting apparatus 51, and a shopping basket not shown can be placed onto the shopping cart.